Los Angeles Times

MONDAY, JULY 16, 2001

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Study Finds Better Way to Fight House Fires

Safety: L.A. officials say compressed air-foam solution reduces damage and quells blazes faster.

By ANDREW BLANKSTEIN TIMES STAFF WRITER

Fire departments have used solutions of water and foam for decades to help snuff out the trickiest and most dangerous infernos, from wind-whipped wildfires to chemically laced industrial blazes.

But a new study conducted by the Los Angeles County Fire Department found the substance can

also be effective in battling residential fires that nationwide kill thousands of people each year and cause millions of dollars in property damage.

The review, published today in Primedia's Fire Chief magazine. compared the effectiveness of water, a foam-water mixture and a compressed air-foam solution in extinguishing fires set last February at three condemned single-family homes in a Palmdale subdivision.

Compressed air-foam was found to be three times more effective in reducing the time it took to extinguish the blazes, said Fire Chief P. Michael Freeman.

"We have used compressed airfoam for the last 41/2 years, primarily to protect the exterior of structures from wildland fires," Freeman said, "But these results demonstrate very clearly for us and anyone who reads this study that foam has dramatic fire suppression potential for interior structural firefighting."

The quicker knockdown times translated into less damage to the homes and their contents and reduced the amount of contaminated runoff from firefighting efforts.

Compressed air-foam mixes a foam-water solution and com-

pressed air together, delivering it through the fire hose's nozzle in a laser-like fashion.

A foam-water solution costs about \$10,000 per fire department vehicle, compared with \$20,000 to \$40,000 for the compressed airfoam, said Bill Ballantyne, vice president of Minneapolis-based FoamPro, which paid for a portion of the county study.

While typical comparisons of foam and water have relied on extinguishing pallets or straw that had been set on fire, the county study used wood-frame, one-story homes that contained furniture. toys and other contents typically found in residential fires.

Freeman said the overall cost of the study to the county was about \$3,000.

"Over the years, we've seen a lot of studies, from the government to the military," said Fire Chief magazine editor Janet Wilmoth, "But this wasn't out of a sterile environment like a laboratory. It was the most realistic setting possible with real houses and furnishings inside."

Los Angeles County firefighters have been using a foam-water solution since 1988 to combat wildfires. Today, the department has more than 200 fire trucks with foam sys-



L.A. firefighters spray a foam mixture to extinguish a recent brush fire in Sepulveda Pass.

tems and 19 engines with compressed air-foam systems.

Ballantyne said he hopes the study will spur more departments to purchase the technology.

"The significance of the results is that we've now quantified what a handful of fire departments have been discovering through their experience," he said.



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